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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,714	03/21/2001	Valerie Descamps	32976-256844	5839
23370	7590	08/25/2004	EXAMINER	
JOHN S. PRATT, ESQ KILPATRICK STOCKTON, LLP 1100 PEACHTREE STREET ATLANTA, GA 30309			MCINTOSH III, TRAVISS C	
			ART UNIT	PAPER NUMBER
			1623	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/787,714

**Applicant(s)**

DESCAMPS ET AL.

**Examiner**

Traviss C McIntosh

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7,12,14,16-18,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,12,14,16-18,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### **DETAILED ACTION**

The Amendment filed April 2, 2004 has been received, entered into the record, and carefully considered. The status of the pending claims is as follows:

Claims 1-6, 8-11, 13, 15, and 19-21 have been canceled.

Claims 7, 12, 14, and 17-18 have been amended.

Claims 22-23 have been added.

Claims 7, 12, 14, 16-18, and 22-23 are pending.

Remarks drawn to rejections of the Office Action mailed 10/2/2003 include:

Claim objections: which have been overcome by applicant's amendments and have been withdrawn.

112 2<sup>nd</sup> paragraph rejections: which have been overcome in part by applicant's amendments and have been withdrawn in part.

103(a) rejection: which has been overcome by applicant's amendments and arguments and has been withdrawn.

An action on the merits of claims 7, 12, 14, 16-18, and 22-23 is contained herein below. The text of those sections of Title 35, US Code which are not included in this action can be found in a prior Office action.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

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has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 2, 2004 has been entered.

### ***Claim Objections***

Claim 7 is objected to because of the following informalities: in the 7<sup>th</sup> line of the claim; the word "to" has a space between the t and the o (i.e., "t o"). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7, 12, 14, 16-18, and 22-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for protecting plants against the tobacco mosaic virus, does not reasonably provide enablement for protecting plants against other phytopathogenic agents. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Undue experimentation is a conclusion reached by weighing the noted factual considerations set forth below as seen in *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). A conclusion of lack of enablement means that, based on the evidence regarding a fair evaluation of an appropriate combination of the factors

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below, the specification, at the time the application was filed, would not have taught one skilled in the art how to make and/or use the full scope of the claimed invention without undue experimentation.

These factors include:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

#### **The breadth of the claims - The nature of the invention**

The claims are drawn to methods of protecting plants (tobacco, wheat, and parsley) from tobacco mosaic virus and other phytopathogenic agents comprising applying an aqueous solution of at least 10 mg/l of sulphated fuco-oligosaccharides with a DP of 4-100  $\alpha$ -L fucose units to the plants. Dependent claims limit the oligosaccharide to various compounds having a DP of 4 or 6.

#### **The state of the prior art**

Plants are known to be hosts to thousands of diseases caused by various phytopathogenic viruses, bacteria, fungi, and nematodes. At the present time, there is no almighty treatment for the various divergent phytopathogenic organisms, as set forth by Ishibashi et al. (US Patent 6,033,658). Column 1, lines 32-32, "it is difficult to treat diseases, as no biological materials or means for controlling concurrently more than 2-3 pathogens have been available".

#### **The level of predictability in the art**

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The examiner acknowledges the probability and predictability that the active agent, which is a fuco-oligosaccharide, has efficacy in protecting plants from the tobacco mosaic virus, however the art is silent with regard to the predictability of effectively treating and subsequent protection from the infection of any phytopathogenic organism.

**The amount of direction provided by the inventor**

The instant specification is not seen to provide adequate guidance which would allow the skilled artisan to extrapolate from the disclosure and examples provided to use the claimed method commensurate in the scope with the instant claims. There is a lack of data and examples which adequately represent the scope of claim as written. The examiner notes, there has not been provided sufficient instruction or sufficient methodological procedures to support the alleged efficacy instantly asserted.

**The existence of working examples**

The working examples set forth in the instant specification are directed to the use of a fuco-oligosaccharide in protection of various plants from tobacco mosaic virus. There has not been provided sufficient evidence which would warrant the skilled artisan in, to accept the data and information provided in the working examples as correlative proof that a healthy plant would never become afflicted with any condition caused by any phytopathogenic agent, if subjected to the instantly claimed therapy.

**The quantity of experimentation needed to make and use the invention based on the content of the disclosure**

Indeed, in view of the information set forth supra, the instant disclosure is not seen to be sufficient to enable the use of fuco-oligosaccharides to protect plants from any

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phytopathogenic agent without undue experimentation. One skilled in the art could not use the entire scope of the claimed invention without undue experimentation.

The rejection of claims 16 and 17 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is maintained for reasons of record.

Claims 16 and 17 intend to limit the fuco-oligosaccharide of claim 7 to various products which are described by the method of making the products. It is unclear as to how the process for making an active agent would in turn patentably affect the process of using the identical active agent which was produced by a different means. The recitation in a dependent claim of the source of an active agent to be used in a method from which said claim depends, wherein the "source of the active agent" does not result in a patentably distinguishable methodological and manipulative difference in how said active agent's source impacts the method from which it depends, renders the claim(s) in which it occurs and which depend therefrom indefinite for failing to distinctly articulate how such a recitation further limits the method from which said dependent claim(s) applicant regards as the invention. It is unclear how the method of obtaining a compound would patentably affect the method of using the same.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Traviss C McIntosh whose telephone number is 571-272-0657. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Traviss C. McIntosh III  
August 13, 2004



James O. Wilson  
Supervisory Patent Examiner  
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